

Stomatopod Crustacea of the Macleay Museum, University of Sydney

SHANE T. AHYONG¹ AND STUART F. NORRINGTON²

¹Department of Marine Invertebrates, Australian Museum, 6 College St, Sydney South 2000; and ²Macleay Museum, University of Sydney 2006.

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The stomatopod crustaceans in the Macleay Museum are documented for the first time. The collection includes 96 specimens, representing 7 families (Gonodactylidae, Odontodactylidae, Pseudosquillidae, Lysiosquillidae, Harpiosquillidae, Squillidae, Takuidae). The 13 genera include 21 species, grouped as follows: *Gonodactylaceus* (3), *Gonodactylinus* (1), *Gonodactylus* (3), *Neogonodactylus* (3), *Mesacturus* (1), *Odontodactylus* (2), *Pseudosquilla* (1), *Pseudosquillana* (1), *Lysiosquilla* (2), *Harpiosquilla* (1), *Alima* (1), *Oratosquilla* (1), *Oratosquillina* (1). These stomatopods form part of larger natural history collections made last century by the Macleays and associates. The stomatopod collection is significant for its inclusion of material from both the western Atlantic and the Indo-West Pacific. Several rare Indo-West Pacific species are represented and much of the western Atlantic material is unique in Australia. The presence of *Gonodactylaceus falcatus* in north-eastern Australia is confirmed. *Gonodactylus chiragra* and *G. platysoma* are newly reported from Lord Howe Island. *Gonodactylinus viridis* is reported from Samoa, *Oratosquilla calumnia* is reported from Fiji and *Pseudosquillana megalophthalma* is reported from the Moluccas for the first time.

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INTRODUCTION

Among the most pugnacious and aggressive crustaceans are the mantis shrimps. They are the 'thugs of crustaceandom' (Schmitt 1965) and comprise the order Stomatopoda, the only extant representatives of the subclass Hoplocarida (Schram 1986). Stomatopods occur in most tropical marine habitats and always occupy a burrow or shelter. All are active predators and many species are flamboyantly coloured. Characteristic features of stomatopods are the large and powerful raptorial appendages; prey is captured by 'spearing' or 'smashing', depending on whether the raptorial dactylus is extended or folded during the strike.

The stomatopod collection in the Macleay Museum, although small, is significant for the several rare species represented. From an Australian perspective, much of the western Atlantic material is significant inasmuch as it is the only material of its kind in the country.

The crustacean collection probably began with material acquired or collected by William Sharp Macleay while stationed in Havana, Cuba (1825–1836). Further additions include an extensive collection of "Annulosa" from the Cape of Good Hope (Macleay 1838); other specimens were collected at sea enroute to Australia in 1838 (Fletcher 1929). After W.S. Macleay's death in 1865, the collections were inherited by his cousin William John Macleay who expanded the collections to include vertebrate and ethnographical specimens.

Professional collectors, donations and Linnean Society collecting trips all contributed to the collections. The 1875 'Chevert' Expedition to New Guinea, however, provided the best single opportunity to collect new material. Today, most of these specimens remain to be documented and provide the best example of the continuing legacy of the Macleays.

MATERIALS AND METHODS

Synonymies are not intended to be complete. They are restricted to the most significant works or those available to us at the time of writing. Some specimens lack collection data and the position of the Chichester Reefs (C7, C8, C32) is presently indeterminate. Those records are nevertheless included for completeness. The location of the Chichester Reefs will likely be known in the future, particularly through ongoing historical study of the Macleays.

Since most specimens were preserved dry, the overall length could not be measured consistently. Therefore, measurements were restricted to carapace length. Carapace length (CL) was measured along the midline of the carapace to the nearest tenth millimetre (mm). Other abbreviations: Is. (island); R.(river); indet. (indeterminate); NSW (New South Wales); NT (Northern Territory); QLD (Queensland).

The collections comprise 57 dry specimens (C1–57) and 39 wet specimens (C58–96) stored in 70% alcohol.

SYSTEMATIC ACCOUNT

Superfamily GONODACTYLOIDEA Giesbrecht, 1910

Family GONODACTYLIDAE Giesbrecht, 1910

Gonodactylaceus falcatus (Forskål, 1775)

Cancer falcatus Forskål 1775: 9.

Gonodactylus falcatus — Holthuis 1967: 31, 41 — Manning 1978a: 4, 5, 13, figs 1, 2a, 9, 1991: 3 — Manning and Lewinsohn 1986: 7–10 — Moosa 1989, 1991: 156–157.

Gonodactylaceus falcatus — Manning 1995: 42–43.

Material

C20, male, CL 11.0mm, Palm Is., QLD, fragmented, 'Chevert' Expedition, 13 August 1875; C22, male, CL 9.0mm, locality and collector unknown; C24, female, CL 8.3mm, locality and collector unknown; C37, female, CL 14.7mm, Endeavour R., QLD, coll. E. Spalding, 1874; C39, 40, New Caledonia, purchased by J. Brazier, 12 September 1874; C39, male, CL 7.5mm; C40, female, CL 9.5mm; C68–72, Sue Is., Torres Strait, 'Chevert' Expedition, 26 June 1875; C68, male, CL 11.0mm; C69, female, CL 10.6mm; C70, female, CL 9.2mm; C71, female, CL 8.6mm; C72, female, CL 7.2mm.

Remarks and Distribution

Manning (1978a) remarked that all records of *G. falcatus* require verification since much of what was previously referred to as this species actually comprises a species complex, all bearing five longitudinal carinae on the telson. Further some species are difficult to distinguish without reference to colour in life. *Gonodactylaceus falcatus* is known with certainty from the Red Sea (Holthuis 1967, Manning 1978a, Manning and

Lewinsohn 1986), but has also been reported from Japan (Moosa 1989), Australia (Manning 1966, Stephenson and McNeill 1955) and New Caledonia (Moosa 1991). One of us (STA) has observed live material (to be reported on elsewhere) from the northern Great Barrier Reef which match published descriptions of *G. falcatus* from the Red Sea (Holthuis 1967, Manning and Lewinsohn 1986). Material reported here is morphologically identifiable with, and is considered conspecific with, *G. falcatus* on the basis of its confirmed occurrence in Australian waters. *Gonodactylaceus falcatus* may prove to be widely distributed in the Indo-West Pacific but we concur with Manning (1991) that such records still require verification. *Gonodactylus falcatus*, reported by Stephenson and McNeill (1955), from Lord Howe Island may refer to a similar species, *G. mutatus* (Lanchester, 1903) which occurs there (Ahyong unpubl.).

Gonodactylaceus glabrous (Brooks, 1886)

Gonodactylus glabrous Brooks 1886: 62, pl.14: fig.5, pl.15, figs. 7, 9 — Manning 1978a: 5, figs. 3, 10 — Manning and Lewinsohn 1986: 9–10[list] — Moosa 1991: 157–158.

Gonodactylaceus glabrous — Manning 1995: 42–45, fig.12.

Material

C73, male, CL 9.7mm, Moluccas, collector unknown.

Distribution

Gonodactylaceus glabrous is widely distributed in the Indo-West Pacific, from the Red Sea, Vietnam, Indonesia and New Caledonia.

Gonodactylaceus graphurus (Miers, 1875)

Gonodactylus graphurus White 1847: 85 [part; nomen nudum].

Gonodactylus graphurus Miers 1875: 344 [part, White's material only] — Kemp 1913: 169–170 — Stephenson 1952: 12, 1953: 47 — Stephenson and McNeill 1955 — Stephenson 1962: 35 — Manning 1966: 108–9 — Manning 1978a: 5 — Manning and Lewinsohn 1986: 9 [list].

Gonodactylaceus graphurus — Manning 1995: 42–43.

Material

C29, female, CL 8.0mm, Cape York, 'Chevert' Expedition, 18–26 June 1875; C36, female, CL 13.6mm, locality and collector unknown; C41–43, 95, Cape Grenville, QLD, 'Chevert' Expedition, 12–17 June 1875; C41, sex indet., fragmented, CL 6.9mm; C42, sex indet., fragmented, CL 7.7mm; C43, sex indet., fragmented, CL 6.4mm; C95, female, CL 15.5mm.

Remarks

The transverse abdominal grooves are a good recognition character for *Gonodactylaceus graphurus* which otherwise closely resembles *G. falcatus*.

Distribution

Gonodactylaceus graphurus is known only from Australian waters where it is most common subtidally on coral reefs.

Gonodactylinus viridis (Serène, 1954)

Gonodactylus viridis Serène 1954: 6, 7, 10, 74, 75 — Dingle *et al* 1977: 16 — Manning 1978: 4, fig. 2a–c — Moosa 1985: 381–2, 1989: 226.

Gonodactylinus viridis — Manning 1995: 66–68 pl. 4, figs. 8c, d, 9c, 10e, 11c, 25a.

Material

C87, female, CL 11.8mm, locality unknown; C92–94, Navigator Is., Samoa, coll. Rev. G. Brown, [18 March 1875]: C92, male, CL 10.5mm; C93, male, CL 9.0mm; C94, female, CL 10.0mm.

Distribution

The known range of *Gonodactylinus viridis* includes Japan, Vietnam, Thailand, the Philippines, New Caledonia and now Samoa.

Gonodactylus chiragra (Fabricius, 1781)

Squilla chiragra Fabricius 1781: 515.

Gonodactylus chiragra — Kemp 1913: 155, pl.9, fig.107 [synonymy] — Manning 1966: 113–114, 1968: 43–44 — Dingle *et al.* 1977: 17–18 — Manning 1991: 3 — Moosa 1985: 381, 1991: 155–156 — Manning 1995: 68–75, pl.5–8, figs.8e, f, 9a, b, 10a, 11a, 27a, 28–30.

Material

C17, 18, Palm Is., QLD, 'Chevert' Expedition, 31 May–3 June, 1875: C17, female, CL 16.9mm; C18, male, CL 20.3mm; C21, sex indet., thoracic somites damaged, CL 9.8mm C33–35, Torres Strait, 'Chevert' Expedition, 1875: C33, sex indet., fragmented, CL 9.8mm; C34, sex indet., fragmented, CL 11.0mm; C35, female, CL 19.0mm; C44, female, CL 11.3mm, New Caledonia, coll. J. Brazier, 20 April 1874; C47, female, fragmented, CL 18.3mm Low Is., QLD, 'Chevert' Expedition, 7 June, 1875; C49, female, CL 15.2mm, fragmented, Cape Grenville, QLD, 'Chevert' Expedition, 12–17 June 1875; C50, male, CL 14.6mm, locality unknown, coll. W.S. Macleay; C51, male, CL 11.5mm, locality unknown, coll. W.S. Macleay; C52, male, CL 10.5mm, locality unknown, coll. W.S. Macleay; C53, female, CL 17.3mm, locality unknown, coll. W.S. Macleay; C56, female, CL 11.3mm, locality unknown, coll. W.S. Macleay; C62, male, CL 14.1mm, Moluccas, collector unknown; C63, female, CL 14.0mm Moluccas, collector unknown; C64, male, CL 10.5mm, Moluccas, collector unknown; C65, male, CL 7.5mm, Moluccas, collector unknown; C77–79, Port Darwin NT, coll. E. Spalding, September 1877: C77, male, CL 11.4mm; C78, female, CL 11.4mm; C79, female, CL 9.4mm; C82, female, CL 17.3mm, Lord Howe Is., NSW, 'Herald' Expedition; C84, male, CL 13.5mm, locality and collector unknown; C85, male, CL 14.7mm, locality and collector unknown; C86, female, CL 12.3mm, locality and collector unknown.

Distribution

Gonodactylus chiragra occurs on coral reefs and is apparently widely distributed throughout the Indo-West Pacific from Japan, Indonesia, New Caledonia, Australia, the Red Sea and South Africa. This species has not been previously reported from Lord Howe Island.

Gonodactylus platysoma Wood-Mason, 1895

Gonodactylus platysoma Wood-Mason 1895: 11, pl.3, figs. 3–9 — Manning 1966: 110–111, 1968: 44 — Dingle et al. 1977: 17–19 — Cappola and Manning 1994: 277.

Gonodactylus chiragra var *platysoma* — Kemp 1913: 161–162, 1915: 180 — Holthuis 1941: 28.

Gonodactylus chiragra — Stephenson and McNeill 1955: 250 [part] — Manning 1995: 68, 75–76, pls. 9, 10, figs. 9d, 10b, 11b, 27b, 31.

Material

C45–46, Mauritius, coll. J. Brazier, 22 April 1874: C45, female, CL 16.0mm; C46, male, CL 14.5mm; C55, female, CL 14.7mm, locality unknown, coll. W.S. Macleay; C57, male, CL 12.3mm, locality unknown, coll. W.S. Macleay; C66–67, Mauritius, purchased by J. Brazier, 22 April 1874: C66, female, CL 18.8mm; C67, female, CL 16.8mm; C83, female, Lord Howe Is., NSW, CL 16.5mm, 'Herald' Expedition; C88, male, CL 17.7mm, locality and collector unknown; C89, male, CL 18.2mm, locality and collector unknown.

Distribution

This species is known from the Indo-Pacific — western Indian Ocean. Indo-Malayan region, Japan, Australia and the central Pacific from shallow tropical reefs. *Gonodactylus platysoma* has not previously been reported from Lord Howe Island.

Gonodactylus smithii Pocock, 1893

Gonodactylus smithii Pocock 1893: 475, pl. 20B, fig.1 — Manning 1966: 112–113, 1968: 44–45 — Dingle et al. 1977: 19 — Manning 1991: 4 — Moosa 1991: 160 — Cappola and Manning 1994: 277–8 — Manning 1995: 76–80, pls.11, 12, figs. 9e, 10c, 11d, 27c, 32–35.

Material

C12–16, 19, 21, Darnley Is., Torres Strait, 'Chevert' Expedition, 13 August 1875: C12, female, CL 12.0mm; C13, male, CL 16.0mm; C14, male, CL 16.0mm; C15, female, CL 13.2mm; C16, male, CL 14.0mm; C19, female, fragmented, CL 11.6mm; C23, female, CL 11.2mm, locality and collector unknown; C38, female, CL 14.7mm, Endeavour R., QLD, coll. E. Spalding, 1874; C48, female, CL 17.0mm, Low Is., QLD, 'Chevert' Expedition, 7 June, 1875; C54, male, locality unknown, CL 14.0mm, coll. W.S. Macleay; C90, female, Port Moresby, CL 17.0mm; C91, female, Port Moresby, CL 14.8mm.

Distribution

Gonodactylus smithii occurs in the western Indian Ocean, the Indo-Malayan region, New Caledonia and Australia, from the shore to 80m (Moosa 1991). In Australian waters, *G. smithii* is frequently encountered foraging over the reef flat at low tide.

Neogonodactylus bredini (Manning, 1969a)

Gonodactylus bredini Dingle 1969a: 108 [*nomen nudum*].

Gonodactylus bredini Manning 1969a: 315 — Camp 1973: 53–71 — Gore and Becker 1976: 171–172 — Schotte and Manning 1993: 567–8.

Neogonodactylus bredini — Manning 1995: 80.

Material

C25, 30–31, Cuba, coll. W.S. Macleay, 1825–36: C25, female, CL 10.3mm; C30, female, CL 8.0mm; C31, male, CL 8.9mm.

Distribution

Neogonodactylus bredini is a common shore species occurring in the tropical western Atlantic, from Bermuda, through the Caribbean and off the coast of South America (Manning 1969a).

Neogonodactylus oerstedii (Hansen, 1895)

Gonodactylus Oerstedii Hansen 1895: 65, footnote [part].

Gonodactylus oerstedii — Manning 1969a: 325–334 [synonymy] — Gore and Becker 1976: 173–6 — Schotte and Manning 1993: 570.

Neogonodactylus oerstedii — Manning 1995: 80.

Material

C26–27, Cuba, coll. W.S. Macleay, 1825–1836: C26, female, CL 10.6mm; C27, female, CL 9.2mm.

Remarks

Neogonodactylus oerstedii and *N. bredini* are two of the commonest shore species in the tropical western Atlantic.

Distribution

This species is known from Bermuda and southern Florida, to Tobago in shallow water (Schotte and Manning 1993).

Neogonodactylus torus (Manning, 1969)

Gonodactylus torus Manning 1969a: 335, 1970: 111 [discussion] — Manning and Hart 1981: 711 [discussion].

Neogonodactylus torus — Manning 1995: 80.

Material

C28, sex indet., glued to card, CL 4.0mm, Cuba, coll. W.S. Macleay, 1825–1836.

Remarks

The single specimen is in rather poor condition (glued to card and slightly fragmented). The abdominal and thoracic appendages are damaged, preventing determination of sex. *Neogonodactylus torus* is a small species (total length less than 33.7mm) inhabiting relatively deep water, usually more than 50m (Manning 1969).

Distribution

Neogonodactylus torus is common in the tropical western Atlantic and has previously been reported from Cuba (Manning 1969).

Family ODONTODACTYLIDAE Manning, 1980

Odontodactylus japonicus (de Haan, 1844)

Gonodactylus japonicus de Haan 1844, pl. 51, fig.7; 1849: 225 [text].

Odontodactylus japonicus — Kemp 1913: 139 — Kemp and Chopra 1921: 297 [listed] — Holthuis 1941: 276 — Stephenson and McNeill 1955: 248 — Stephenson 1960: 61, 1962: 35, 1965: 260 — Manning 1967: 7–10 fig.2, 1968: 41–42 — Graham et al. 1993: 73 [list].

Material

C7, male, badly fragmented, CL 32.9mm, Chichester Reefs, Pacific; C8, male, badly fragmented, CL 32.8mm, Chichester Reefs, Pacific, coll. Dr Raynor.

Remarks

Although both specimens are substantially fragmented, the telson, raptorial claws, uropods and cephalon are sufficiently intact to allow positive identification.

Distribution

Odontodactylus japonicus is widely distributed in the Indo-West Pacific from Japan, Australia, westwards to Madagascar. In Australia, *O. japonicus* has been reported from Exmouth Gulf and Broome in the west (Stephenson 1962), the Capricorn Group in the east and off the Clarence River, N.S.W (Graham et al. 1993).

We could not locate the Chichester Reefs, but the known distribution of *O. japonicus* suggests a western Pacific location.

Odontodactylus scyllarus (Linnaeus, 1758)

Odontodactylus scyllarus — Kemp 1913: 135 — Stephenson 1953: 46 — Stephenson and McNeill 1955: 248 — Stephenson 1962: 35 — Manning 1967: 10, fig.3 — Dingle et al. 1977: 12, 13 fig.6c–e — Moosa 1991: 163 — Manning 1995: 82–85, pl. 13, figs. 35, 37, 38a, b.

Material

C3, male, CL 29.9mm, Mauritius, purchased by J. Brazier at auction, 22 April 1874; C58, male, CL 29.0mm, locality and collector unknown; C59, male, CL 29.0mm, Cardagos, collector unknown.

Distribution

This species is distributed throughout the Indo-West Pacific from Japan, Australia and westwards to Madagascar. Moosa (1991) recently reported this species from New Caledonia. On the eastern coast of Australia, *O. scyllarus* occurs as far south as the Solitary Islands, northern New South Wales.

Family PSEUDOSQUILLIDAE Manning, 1977

Pseudosquilla ciliata (Fabricius, 1787)

Pseudosquilla ciliata — Kemp 1913: 96–100, 196, 1915: 172 — Holthuis 1941: 261 — Stephenson 1953: 44, 1962: 34 — Holthuis 1967: 15, 16 — Manning 1969a: 264–271 fig.74 — Gore and Becker 1976: 177 — Manning 1977: 100–103 fig.30, 31 — Dingle et al. 1977: 12, fig. 6a, b — Moosa 1985: 385 — Manning and Lewinsohn, 1986: 12 — Moosa 1991: 169–170.

Material

C9, female, CL 18.0mm, Darnley Is., Torres Strait, coll. W.J. Macleay, 'Chevert' Expedition, 13 August 1875; C10, female, CL 12.0mm, fragmented, Cape Grenville, QLD, 'Chevert' Expedition, 12–17 June 1875; C11, male, CL 13.7mm, New Caledonia, purchased by J. Brazier, 12 September 1874; C74–76, Navigator Is., Samoa, coll. Rev. G. Brown: C74, male, CL 10.8mm; C75, male, CL 11.3mm; C76, male, CL 11.4mm; C80, female, CL 11.5mm, Lord Howe Is., NSW, 'Herald' Expedition.

Remarks

Stephenson (1962) referred to a Macleay specimen from Lord Howe Island as a New South Wales record — presumably C80. In all specimens, the intermediate denticle of the telson is spined and the uropodal endopod is evenly rounded distally. They thus correspond to the "forme claire" of Serène (1951).

Distribution

Pseudosquilla ciliata is among the most widely distributed of stomatopods, occurring in all tropical oceans except the eastern Pacific. This species is common in many habitats, from coral rubble to seagrass flats, and is known from coral reefs as far south as Lord Howe Island, eastern Australia.

Pseudosquillana megalophthalma (Bigelow, 1893)

Pseudosquilla megalophthalma Bigelow 1893: 101 — Kemp 1913: 3, 10, 96, 103 — Holthuis 1941 — Manning and Lewinsohn 1986: 12, 15 — Moosa 1991: 174.
Pseudosquilla richeri — Moosa 1991: 175–176, fig.5.
Pseudosquillana megalophthalma — Cappola and Manning 1994: 283.

Material

C81, female, Moluccas. CL 7.9mm.

Remarks

The present specimen agrees with published accounts for material of its size (eg. Holthuis 1941). The dorsal carinae of the telson are well developed and match the type description. The intermediate spines of the sixth abdominal somite do not bear a secondary, inner spine as described for adults, and the cornea, though expanded, is not yet distinctly bilobed.

The length of the raptorial dactylus exceeds the carapace length, and the posterior margin of the claw when folded is in line with the posterior margin of the carapace. The number of movable spines on the opposable, proximal margin has not been reported in the literature for *P. megalophthalma* and in the present specimen, there are 3. The raptorial propodus does not bear a distal tooth and the anterior margin of the rostral plate is more evenly rounded than as figured by Cappola and Manning (1994: fig.4) for the holotype. *Pseudosquilla megalophthalma* as currently recognized, may prove to be composite (Manning, pers. com.).

Distribution

Although relatively rare, *P. megalophthalma* is widely distributed throughout the Indo-West Pacific, from the Red Sea, the western Indian Ocean, Somalia, New Caledonia and now from the Moluccas, Indonesia.

Family TAKUIDAE Manning, 1995

Mesacturus furicaudatus (Miers, 1880)

Gonodactylus furicaudatus Miers, 1880: 124 — Kemp, 1913: 176–177.

Mesacturus furicaudatus — Manning, 1969d: 151–153 — Manning, 1995: 119.

Material

C32, sex indet., fragmented, CL 5.4mm. Chichester Reefs, Pacific, coll. Dr Raynor.

Remarks

Although the telson and thorax are damaged, careful examination allows positive identification. The exact position of the Chichester Reefs could not be determined, except that they are somewhere in the western Pacific (see remarks under the account of *Odontodactylus japonicus* (de Haan)).

Distribution

Mesacturus furicaudatus is known from the Indonesia, Polynesia and the Borodino Islands, south of Japan (Manning, 1969d).

Superfamily LYSIOSQUILLOIDEA Giesbrecht, 1910

Family LYSIOSQUILLIDAE Giesbrecht, 1910

Lysiosquilla capensis Hansen, 1895

Lysiosquilla capensis Hansen 1895: 74 — Barnard 1950: 856, fig.4e — Manning 1969c: 5, fig.1, 1978b: 3, fig.11, 1995: 125–126.

Material

C2, female, CL 17.9mm, off Cape of Good Hope, tow-net, coll. W.S. Macleay, 1839.

Distribution

Lysiosquilla capensis is known only from southern African waters, from the shore to 90m (Manning 1978b).

Lysiosquilla scabricauda (Lamarck, 1818)

Squilla scabricauda Lamarck 1818:188.

Lysiosquilla scabricauda — Manning 1969a: 24–34 [American specimens only].

Material

C1, male, fragmented, CL 46.0mm, Antilles.

Distribution

Lysiosquilla scabricauda is a large and common western Atlantic species, recorded from Bermuda, through the Caribbean to southern Brazil (Manning 1969).

Superfamily SQUILLOIDEA Latreille, 1803

Family HARPIOSQUILLIDAE Manning, 1980

Harpiosquilla harpax (de Haan, 1844)

Squilla harpax de Haan 1844, atlas, pl.51, fig.1; 1849: 222, text — Tiwari and Biswas 1952: 358, figs.3b, d, f.

Squilla raphidea — Kemp 1913: 88, pl.7, fig.77 [part] — Holthuis 1941: 256 [part] — Stephenson and McNeill 1955: 239 [part]. [All not *S. raphidea* Fabricius] — Stephenson 1962: 34.

Harpiosquilla harpax — Manning 1968: 15–18, fig.4 — Tirmizi and Manning 1968: 33–35, fig.13 — Manning 1969b: 25–33, figs. 28–38, 1969c: 7 — Moosa 1985: 390 — Manning 1991: 8 — Manning 1995: 148, 153–158, pl.28, figs. 90a, 92b, 93, 95, 96.

Material

C6, male, fragmented, CL 31.5mm, Indian seas, collector unknown.

Remarks

The specimen is highly fragmented but may be recognized by the remaining cephalon, telson and uropods. The angled, inferior margin of the raptorial dactylus indicates that the specimen is an adult male (Manning 1969b).

Distribution

Harpiosquilla harpax is the most widely distributed species of the genus, occurring in the Red Sea and throughout the Indo-West Pacific including Australia. In Australia, it is known as far south as Botany Bay, New South Wales.

Family SQUILLIDAE Latreille, 1803

Alima laevis (Hess, 1865)

Squilla laevis Hess 1865: 170, pl. 7, fig. 22 — Kemp 1913: 40 pl. III, figs.35–37 — Stephenson 1952: 6, 1953: 40 — Stephenson and McNeill 1955: 242 — Stephenson 1960: 61, 1962: 33 — Manning 1966: 98–99.

Alima laevis — Moosa 1991: 188.

Material

C4–5, 60, Port Jackson, NSW, coll. Brazier or Macleay, 1874; C4, female, CL 20.2mm; C5, female, CL 19.9mm; C60, male, CL 28.0mm.

Distribution

Alima laevis is the most frequently encountered stomatopod in southern Australian estuaries. It has been reported from Broome in the west (Stephenson 1962), southwards around the continent and north to Queensland. Moosa (1991) reported this species from New Caledonia.

Oratosquilla calumnia (Townsend, 1953)

Squilla calumnia Townsend 1953: 410, figs 8, 9.

Oratosquilla calumnia — Manning 1971: 4–6, fig.1 — Moosa 1991: 210–211.

Material

C61, male, CL 22.5mm, Fiji, coll. A. Boyd, 9 February 1876.

Remarks

The specimen agrees well with Manning's (1971) diagnosis of *O. calumnia*: the dorsal surface is rugose and the anterior lobe of the lateral process of the seventh thoracic somite is sharp. The anterior lobe of the lateral process of the sixth thoracic somite is more slender as in *O. oratoria*, but not as slender as in *O. mauritiana* (Manning, 1968). Abdominal carinae are spined as follows: submedian 4–6, intermediate 1–6, lateral 1–6, marginal 1–5.

Distribution

Originally described from Hawaiian waters, *O. calumnia* has also been reported from New Caledonia (Moosa 1991). The present new record from Fiji further suggests that *O. calumnia* may be widely distributed in the central and western Pacific.

Oratosquillina asiatica (Manning, 1978)

Squilla fabricii — Stephenson 1962: 33 [not *Squilla fabricii* Holthuis 1941].

Oratosquilla asiatica — Manning 1978: 10–12, fig. 4 — Moosa and Cleva 1984: 78–79.

Oratosquillina asiatica — Manning 1995: 225, 227.

Material

C96, female, CL 19.4mm, Moluccas.

Remarks

The specimen largely agrees with the type description (Holthuis 1941) differing in the bearing additional abdominal spines, and an indistinct rostral carina. The abdominal spination is as follows: submedian 3–6, intermediate 2–6, lateral 1–6, marginal 1–5. Stephenson (1962) referred this specimen to *Squilla fabricii* Holthuis.

Distribution

This species is known from Taiwan, the Philippines, Indonesia and Irian Jaya (Manning 1978, 1995). The present record is within the known range for the species.

DISCUSSION

The bathymetric distributions of stomatopods represented in the Macleay collections imply that collecting efforts were largely restricted to intertidal and shallow sublittoral zones. Four species were collected from the Caribbean (5% of the Western Atlantic fauna) and 17 species from the western Pacific and southern Africa (7% of the Indo-West Pacific fauna). The Caribbean specimens are not taxonomically remarkable, but are significant since many are the only stomatopods from that region presently in Australia.

Several rare or seldom reported Indo-West Pacific species are included in the collection: *Pseudosquilla megalophthalma*, *Oratosquilla calumnia*, *Oratosquillina asiatica* and *Mesacturus furicaudatus* (see remarks under accounts of those species). Of these, *P. megalophthalma* and *O. calumnia* are newly reported from the Moluccas and Fiji respectively.

The Lord Howe Island records of *Gonodactylus chiragra* and *G. platysoma* are new. The Australian record of *Gonodactylaceus falcatus* extends its known range to well outside of the Red Sea where it was believed endemic (Manning and Lewinsohn 1986).

The handful of new distribution records from this small collection points to the fact that many more stomatopod species may be more widely distributed than presently known. More intense collecting effort will likely alter our zoogeographical understanding of many species and their radiations.

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